BIGBEAR.AI HOLDINGS, INC.

12,325,772 Shares of Common Stock
Up to 11,569,920 Shares of Common Stock by the Selling Stockholders
366,533 warrants by the Selling Stockholders
6.00% Convertible Senior Notes due 2026 by the Selling Noteholders
Up to 23,709,503 Shares of Common Stock Underlying 2026 Convertible Notes

This prospectus supplement updates and supplements the prospectus dated May 23, 2022 (as further supplemented, the "**Prospectus**"), which forms a part of our Registration Statement on Form S-1 (Registration No. 333-261887). This prospectus supplement is being filed to update and supplement the information in the Prospectus with the information contained in our Current Report on Form 8-K filed with the Securities and Exchange Commission on June 2, 2022.

This prospectus relates to (a) the issuance by us of up to 12,325,772 shares of our common stock, par value $0.0001 per share ("**Common Stock**"), upon the exercise of warrants consisting of (i) 11,959,239 public warrants (as defined below) and (ii) 366,533 Private Placement Warrants (as defined below), each exercisable for one share of Common Stock at a price of $11.50 per share ("**warrants**"), (b) the resale from time to time of (i) up to 11,936,453 shares of Common Stock, consisting of 11,569,920 shares of Common Stock and 366,533 shares of Common Stock issuable upon the exercise of warrants and (ii) 366,533 warrants by the selling security holders named in this prospectus (each a "**Selling Stockholder**," and, collectively, the "**Selling Stockholders**") and (c) the resale from time to time of up to approximately $200,000,000 in aggregate principal amount of 6.00% convertible senior notes due 2026 (the "**2026 Convertible Notes**") by the selling holders named in this prospectus (the "**Selling Noteholders**" and, together with the Selling Stockholders, the "**Selling Securityholders**") and up to 23,709,503 shares of Common Stock issuable upon conversion of the 2026 Convertible Notes by the Selling Noteholders. This prospectus supplement should be read in conjunction with the Prospectus. This prospectus supplement updates and supplements the information in the Prospectus. If there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement.

Investing in our securities involves risks that are described in the "*Risk Factors*" section beginning on page 15 of the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if the Prospectus or this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is June 2, 2022.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(D)
OF THE SECURITIES EXCHANGE ACT OF 1934

Date of report (date of earliest event reported): June 2, 2022

BigBear.ai Holdings, Inc.
(Exact name of Registrant as Specified in Charter)

Delaware	001-40031	85-4164597
(State or Other Jurisdiction of Incorporation or Organization)	**(Commission File Number)**	**(I.R.S. Employer Identification No.)**

6811 Benjamin Franklin Drive, Suite 200
Columbia, Maryland 21046
(Address of principal executive offices, including Zip Code)

(410) 312-0885
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	**BBAI**	**New York Stock Exchange**
Redeemable warrants, each full warrant exercisable for one share of common stock at an exercise price of $11.50 per share	**BBAI.WS**	**New York Stock Exchange**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2). Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 5.02.   **Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.**

On June 2, 2022, BigBear.ai Holdings, Inc. (the "**Company**") announced Julie Peffer as the new Chief Financial Officer of the Company, effective June 13, 2022. She will succeed Joshua Kinley, who has served as the Company's Chief Financial Officer since December 2020. Mr. Kinley's resignation from his role as Chief Financial Officer was not the result of any disagreement with the Company and he will continue to serve the Company as Chief Corporate Development Officer, reporting to the Chief Executive Officer. The Company thanks Mr. Kinley for his service to the Company and its stockholders.

Ms. Peffer, age 55, joins the Company from MedeAnalytics where she served as Chief Financial Officer beginning in January 2021. Prior to that, Ms. Peffer served as Vice President, Finance at Amazon Web Services from February 2017 to March 2020. Before that, Ms. Peffer served as Vice President, Finance at Flowserve Corporation from April 2014 to September 2016. Ms. Peffer has also held a variety of executive financial leadership positions encompassing P&L ownership as well as corporate and business level financial planning and analysis across multiple industries, including at Raytheon Space & Airborne Systems, ITT Geospatial Systems, Lennox International, and Textron. Ms. Peffer earned her Bachelor of Business Administration degree in Finance and Management from Texas Tech University and a Master of Business Administration degree from Baker University.

There are no arrangements or understandings between Ms. Peffer and any other person pursuant to which Ms. Peffer was appointed as Chief Financial Officer. There are no family relationships among any of the Company's directors or executive officers and Ms. Peffer.

Ms. Peffer will be entitled to the following compensation: (i) an annualized base salary of $400,000 per year; (ii) eligibility to participate in the Company's short term incentive program with an annual cash bonus of up to 100% of her annual base salary, based upon mutually developed performance objectives; (iii) an up-front time-based long-term incentive award with a grant date value of $400,000 and delivered 50% in the form of restricted stock units and 50% in the form of stock options, 25% of which will vest on the first anniversary of the grant date and the remaining 75% will vest in equal quarterly installments on each quarterly anniversary of the grant date thereafter; (iv) beginning in 2023 and subject to compensation committee approval, a recurring annual grant valued at 75% of base compensation and split (at the compensation committee's discretion) between restricted stock units, performance stock units and stock options; and (v) eligibility to participate in the Company's employee benefit plans and programs in accordance with the terms and conditions of the applicable plans and programs.

In connection with her appointment, the Company will enter into its standard form of indemnification agreement with Ms. Peffer, a copy of which is attached as Exhibit 10.1 and incorporated by reference herein.

Item 7.01   **Regulation FD Disclosure.**

On June 2, 2022, the Company issued a press release with respect to the management changes described in Item 5.02 of this Current Report on Form 8-K. The press release is included in this report as Exhibit 99.1 and is incorporated herein by reference. This information shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), or otherwise subject to the liabilities of that section, and is not incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act.

Item 9.01.   Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Number	Description
10.1	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed by BigBear.ai Holdings, Inc. on December 13, 2021).
99.1	Press Release, dated as of June 2, 2022.
104	The cover page from this Current Report on Form 8-K, formatted in Inline XBRL.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: June 2, 2022   **BIGBEAR.AI HOLDINGS, INC.**

                                        By: /s/ Carolyn Blankenship
                                              Carolyn Blankenship
                                              General Counsel and Secretary

4

Exhibit 99.1

BigBear.ai Announces Key Leadership Appointments in Finance and Corporate Development

Julie Peffer, Technology, Defense, and SaaS Veteran, to be Appointed Chief Financial Officer
Josh Kinley to Drive M&A Strategy as Chief Corporate Development Officer

COLUMBIA, Md.— June 2, 2022—BigBear.ai (NYSE: BBAI), a leader in AI-powered analytics and cyber engineering solutions, today announced that it has expanded its leadership team to better execute on its growth strategy. Effective June 13, 2022, current Chief Financial Officer Josh Kinley will take a new role as Chief Corporate Development Officer, and former Amazon executive Julie Peffer will become Chief Financial Officer of the Company.

Julie Peffer, a seasoned finance leader with deep experience in the defense and commercial sectors as well as SaaS modeling and pricing, joins BigBear.ai from MedeAnalytics, a healthcare analytics company, where she served as Chief Financial Officer since January 2021. Prior to that, Peffer served as Vice President, Finance at Amazon, where she stood up a strategic Finance organization that supported all customer-facing teams (global Sales, Marketing and Customer Support) and go-to-market strategies of Amazon Web Services (AWS) around the world.

As the Company's first Chief Corporate Development Officer, Josh Kinley will drive strategic growth initiatives across the Company's federal and commercial businesses, identifying and evaluating opportunities for Mergers and Acquisitions (M&A) and leading integration strategy and execution.

Both Kinley and Peffer will report to BigBear.ai Chief Executive Officer Dr. Reggie Brothers.

"Josh and Julie's appointments truly represent a 'win-win' situation that will help accelerate our momentum and ensure we are positioned to capitalize on the rapidly growing demand for AI and ML solutions in the federal and commercial sectors," said Dr. Brothers. "Josh has been instrumental in executing and integrating the mergers that formed BigBear.ai, establishing our public company infrastructure and leading the IPO workstream. His financial acumen, technology and management consulting background, as well as his intelligence community and defense experience, make him the ideal executive to take charge of our growth strategy."

"We are also incredibly pleased to welcome Julie to our leadership team, and we are confident that her significant experience driving revenue growth and margin expansion through effective SaaS modeling and pricing will be a tremendous addition to our financial operations. Her deep understanding of our current and future customers makes her a perfect addition to the team," added Dr. Brothers.

Kinley stated, "I'm excited to be able to focus my energy on the enormous market for our solutions and guide our growth strategy. I'm also excited to partner with Julie, as her experience and insights into our markets have already thoroughly impressed our entire team. I couldn't think of a better person to 'pass the baton' to during a critical stage in our evolution from a services-led company to a commercial SaaS provider and AI powerhouse."

"BigBear.ai's heritage serving our national defense and intelligence communities puts the Company in a unique position to capitalize on the market's hunger for powerful, predictive AI solutions that can be used by businesspeople to improve their operating efficiency and competitive position," said Peffer. "I am thrilled to join the Company at such a pivotal time in its trajectory, and I look forward to working with Reggie, Josh, and the rest of the talented team at BigBear.ai to aggressively drive growth and create value for shareholders," said Peffer.

Executive Bios

Mr. Kinley has served as the Chief Financial Officer of BigBear.ai since its founding in December 2020. He has more than 20 years of experience in the Intelligence Community and the Department of Defense and more than 12 years of experience as a Chief Financial Officer. He co-founded PCI in April 2008 and served as its Chief Financial Officer prior to its acquisition by BigBear.ai. Before that, he was the Senior Director of Acquisition Support at SI International and served as a management consultant to senior Intelligence Community executives. He began his career with the U.S. Army as a Military Intelligence Officer. Mr. Kinley earned his bachelor's degree in Life Sciences from the United States Military Academy at West Point and his MBA from Johns Hopkins University with a focus on IT Management.

Ms. Peffer previously served as the Chief Financial Officer for MedeAnalytics, a healthcare analytics company, since January 2021. Prior to joining MedeAnalytics, she served as Vice President, Finance at Amazon for Amazon Web Services, where she built and led global finance operations in support of all customer-facing teams (Sales, Marketing, and Customer Support). Ms. Peffer held various financial executive leadership positions across multiple industries (Defense, Aerospace, Industrial Manufacturing, Software, Multi-Industry companies) with global strategic and operational expertise. She has successfully implemented strategies, initiatives, systems and solutions that drive and support employee development, organizational change, performance excellence and revenue growth including expertise in Six Sigma DMAIC and Lean. Prior to Amazon, Ms. Peffer was VP, Finance at Flowserve within the Flow Control Division with manufacturing operations in 25 countries, and previous to that she was at Raytheon Space & Airborne Systems, where she worked as CFO for the Intelligence, Surveillance and Reconnaissance business which included operations in the US, Germany and the UK. She has also held senior leadership positions at ITT, Lennox International, Textron, Sterling Software and Texas Instruments. She earned her bachelor's degree in Finance and Management from Texas Tech University and her MBA from Baker University.

About BigBear.ai

BigBear.ai delivers AI-powered analytics and cyber engineering solutions to support mission-critical operations and decision-making in complex, real-world environments. BigBear.ai's customers, which include the US Intelligence Community, as well as customers in manufacturing, logistics, commercial space, and other sectors, rely on BigBear.ai's solutions to see and shape their world through reliable, predictive insights and goal-oriented advice. Headquartered in Columbia, Maryland, BigBear.ai has additional locations in Virginia, Massachusetts, Michigan, Alabama, Pennsylvania, Utah and California. For more information, visit: https://bigbear.ai and follow us on Twitter: @BigBearai.

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